

## Refine Search

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Terms	Documents
L2 same controller	36

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<u>L3</u>	L2 same controller	36	<u>L3</u>
<u>L2</u>	L1 same (chip or IC)	75	<u>L2</u>
<u>L1</u>	(memory adj 1 (card or board)) same (interfac\$3 near5 (USB or "universal serial bus"))	879	<u>L1</u>

*X serial*

END OF SEARCH HISTORY

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### Search Results -

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L3	0

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<i>DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
<u>L4</u>	L3	0	<u>L4</u>
<i>DB=PGPB,USPT,USOC; PLUR=YES; OP=OR</i>			
<u>L3</u>	L2 same controller	36	<u>L3</u>
<u>L2</u>	L1 same (chip or IC)	75	<u>L2</u>
<u>L1</u>	(memory adj 1 (card or board)) same (interfac\$3 near5 (USB or "universal serial bus"))	879	<u>L1</u>

X serial

END OF SEARCH HISTORY

**EAST - [Untitled1:1]**

File View Edit Tools Window Help

☐ Drafts  
☐ Pending  
☒ **Active**  
     L1: (170) (memory adj1  
     L2: (15) 11 same (chip  
     L3: (7) 12 same control  
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	Type	L #	Hits	Search Text	DBs	Time Stam	Comment	Error	Definit	Er
1	BRS	L1	170	(memory adj1 (card or board)) same (interfa	USPA	2005/08/2				
2	BRS	L2	15	11 same (chip or IC)	USPA	2005/08/2				
3	BRS	L3	7	12 same controller	USPA	2005/08/2				

**EAST - [Untitled1:1]**

File View Edit Tools Window Help

☐ Drafts  
☐ Pending  
☒ Active  
     L1: (170) (memory adj1  
     L2: (15) 11 same (chip  
     L3: (7) 12 same control  
☐ Failed  
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12 same controller

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	U	I	Document ID	Issue Dat	Pages	Title	Current OR	Current XR
1	<input type="checkbox"/>	<input type="checkbox"/>	US 6912638 B2	20050628	22	System-on-a-chip controller	711/167	345/534; 345/571
2	<input type="checkbox"/>	<input type="checkbox"/>	US 6854984 B1	20050215	19	Slim USB connector with spring-engaging depress	439/79	439/610
3	<input type="checkbox"/>	<input type="checkbox"/>	US 6839864 B2	20050104	33	Field-operable, stand-alone apparatus f	714/5	711/159
4	<input type="checkbox"/>	<input type="checkbox"/>	US 6737877 B1	20040518	11	Method and circuit for reading a potentiometer	324/723	324/535; 324/677;
5	<input type="checkbox"/>	<input type="checkbox"/>	US 6725286 B2	20040420	21	Information-processing apparatus, information-	710/8	710/11; 710/62;
6	<input type="checkbox"/>	<input type="checkbox"/>	US 6438638 B1	20020820	22	Flashtaster for reading several types o	710/301	710/303
7	<input type="checkbox"/>	<input type="checkbox"/>	US 6246578 B1	20010612	8	Computer-dedicated auxiliary data access d	361/686	361/724; 361/726;



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 Display Format: ☒ Citation ☐ Citation & Abstract

## » Key

IEEE JNL IEEE Journal or Magazine

IEEE JNL IEE Journal or Magazine

IEEE CNF IEEE Conference Proceeding

IEEE CNF IEE Conference Proceeding

IEEE STD IEEE Standard

Select Article Information

☐ 1. The performance improvement of a photo card reader by the use of a high-integration chip solution with double FIFO buffers

 Ying-Wen Bai; Chang-Chih Liu;  
 Consumer Electronics, IEEE Transactions on  
 Volume 51, Issue 2, May 2005 Page(s):329 - 334  
 Digital Object Identifier 10.1109/TCE.2005.1467967  
[AbstractPlus](#) | Full Text: [PDF](#)(655 KB) [IEEE JNL](#)
☐ 2. Memory on the move  
 Sherwin, R.M.;  
 Spectrum, IEEE  
 Volume 38, Issue 5, May 2001 Page(s):55 - 59  
 Digital Object Identifier 10.1109/6.920032  
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## The performance improvement of a photo card reader by the use of a high-integration chip solution with double FIFO buffers

Ying-Men Bai, Chang-Chih Liu

Dept. of Electron. Eng., Fu Jen Catholic Univ., Taipei, Taiwan

This paper appears in: **Consumer Electronics, IEEE Transactions on**

Publication Date: May 2005

Volume: 51, Issue: 2

On page(s): 329 - 334

ISSN: 0098-3063

INSPEC Accession Number: 8507897

Digital Object Identifier: 10.1109/TC.2005.1467967

Posted online: 2005-07-18 08:16:37.0

### Abstract

The insufficient bandwidth of SDRAM access has created a bottleneck in the performance of displaying and processing when used in previous design of the photo card reader. In this paper, we propose three ways to overcome this drawback. First, we double the clock rate of the SDRAM operation to increase the amount of the memory bandwidth. Second, we use a dual port design of the SDRAM with a double buffer for the strip module to increase the usage efficiency of the bandwidth. Third, we also use a double buffer for the mem/spi lbar/crt module to increase the usage efficiency of the bandwidth. Using the extra gate counts of double FIFO buffers results in an increase of 3.3% from the previous system. Our new design has an improvement in the processing speed of about 4.4 times for displaying photos.

Index Terms

inspec

### Controlled Indexing

SRAM chips buffer storage digital photography memory cards smart cards

### Non-controlled Indexing

SDRAM clock rate double FIFO buffer dual port design high-integration chip solution photo card reader

### Author Keywords

Not Available

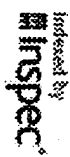
### References

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### Citing Documents

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